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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,146	01/11/2002	Matthew Bate	9578-003-27	5812

7590 07/12/2005

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EXAMINER

GURSHMAN, GRIGORY

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,146

Applicant(s)

BATE ET AL.

Examiner

Grigory Gurshman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/17/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 13, 14, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyle (U.S. Patent No. 5,864,854).

3. Referring to the instant claims, Boyle discloses a system and method for maintaining a shared cache look-up table (see abstract and Fig.1). Boyle teaches that the system defines a group of interconnected clients which have associated cache memories. The system maintains a shared group cache look-up table for the group having entries which identify data items cached by the clients within the group and identify the clients at which the data items are cached. Each client in the group has access to the group cache look-up table, and any client or group can cache any data item. The system can include a hierarchy of groups, with each group having a group cache look-up table. Boyle also teaches that one of the clients identified in client identifier field 52 may include a subgroup of information appliances. Since each member of each group can cache any data item, the subgroup may have several copies of a data item distributed among various information appliances. Replication count field 54 indicates the number of copies of the data item that are cached within the client or subgroup identified in client identifier field 52. The replication count may represent the

number of active copies of the data item and/or the cumulative number of copies of the data item (since a client may request a copy and then discard it). The replication counts are passed back to servers, such as server 22, for statistical or billing purposes (see Fig. 2).

4. Referring to the independent claim 1, the limitation "an item store holding a plurality of data items, each data item comprising a pointer to a source data entity accessible from the network" is met by storage devices coupled to a server (see Fig. 1 units 21 and 22). The limitation "a component for serving copies of data items to the client" is met by wan routers (17 and 18) couple either to Internet or to LAN (Fig. 1). The limitation "client including an item store for holding a copy of one or more of the data items held by the server item store" is met by disk (27) use at the client site for storage of data items. The limitation "a component for requesting a copy of a data item from the server and pacing it in the client item store" is met by teaching that the information appliance initiating the request determines whether there are any higher level group look-up tables, at step 120. If not, the client initiating the request directs the request to a server serving a storage device or to a wide area network router, at step 122 (see Fig. 5). The limitation "component for validating copies of data items held by the client item store and initiating a request for an updated copy of the data item from the server..." is met by teaching that data valid field 48 includes a data valid bit which indicates whether the data item associated with the table entry is valid to maintain cache consistency. The data valid bit is invalidated by the operating system or the application program implementing the table whenever the memory location from which

the data item originated is written to or modified. Any new copies of the data item must then be obtained from the original memory location. The data valid field may include other state information, such as pending requests to the server, as needed for the cache coherence protocol (see column 3, lines 63-67 and Fig. 2). The limitation "user interface" is met by the client computer 34 (see Fig. 1).

5. Referring to claim 2, Boyle teaches verifying the data item by the valid data bit (48) created at the time of creation of a copy of the data item.

6. Referring to claim 3, the limitation "a group store holding a plurality of group identifiers..." is met by the group look-up tables.

7. Referring to claims 4 and 5, the limitation "updating the copy of any data entity held by the client data store if the original has changed" is met by teaching that the data valid bit is invalidated by the operating system or the application program implementing the table whenever the memory location from which the data item originated is written to or modified. Any new copies of the data item must then be obtained from the original memory location (see column 4, lines 1-5).

8. Referring to claim 6, Boyle explicitly teaches that the copies of data items are associated with the original data items held by the client store.

9. Referring to claim 7, Boyle teaches that data store is held at the server (see units 21 and 22 in Fig. 1).

10. Referring to claim 8 and 11, Boyle teaches data items comprising security tags in a form of client identifiers and data identifiers (see Fig. 2).

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11. Referring to claim 14, the limitation "meta tag" is met by tags in Fig. 2.
12. Referring to claim 17, the limitation "to amalgamate digital data from a variety of disparate sources" is met by
13. Referring to claim 18, the limitation "to manage the flow of work or a project" is met by Fig. 5 (blocks 106, 120, 24 and 122).
14. Referring to claim 19, Boyle meets all the limitations the same was as per claim 1 and 4. In particular the limitation "validating copies of data items held by the clients tore and initiating a request for an updated copy" is met by teaching that the data valid bit is invalidated by the operating system or the application program implementing the table whenever the memory location from which the data item originated is written to or modified. Any new copies of the data item must then be obtained from the original memory location (see column 4, lines 1-5).
15. Referring to claim 20, "a component for serving copies of data items to a client in response to a request from the client" is met by units 17 and 18 in Fig. 1.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 9- 12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle (U.S. Patent No. 5,864,854) in view of Nori (U.S. Patent No. 5,999,943).

18. Referring to the instant claims, Boyle discloses a system and method for maintaining a shared cache look-up table (see abstract and Fig.1). Boyle teaches that the system defines a group of interconnected clients which have associated cache memories. The system maintains a shared group cache look-up table for the group having entries which identify data items cached by the clients within the group and identify the clients at which the data items are cached. Each client in the group has access to the group cache look-up table, and any client or group can cache any data item. The system can include a hierarchy of groups, with each group having a group cache look-up table. While Boyle teaches the use of client identifiers (Fig. 3), he does not explicitly teach using the identifiers for controlling the access to the data items.

19. Referring to the instant claims, Nori discloses Lob locators (see abstract). Nori teaches that a method and system for performing operations on large objects (LOBs) in a database system are provided. A server receives from a client a command that identifies a row of a table. The table includes a LOB column that contains LOBs. The server responds to the command by sending the client a first set of data from the row. The first set of data includes a locator for a LOB that belongs in the LOB column of the row. The locator includes a LOB identifier that uniquely identifies the LOB and snapshot information that identifies a particular version of the LOB. The server receives from the client a request to perform an operation on the LOB. The request passes the

locator for the LOB to a routine provided by the server. Nori also teaches granting permission for user to either access or modify data (see Fig. 4, block 404).

20. Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the system of shared cache look-up table of Boyle, using the client identifiers for selecting the group tables, by also using the identifiers for granting or limiting access to data items as taught in Nori. One of ordinary skill in the art would have been motivated to modify the system of shared cache look-up table of Boyle, using the client identifiers for selecting the group tables, by also using the identifiers for granting or limiting access to data items as taught in Nori for making the determination for granting the user a permission for insert operation for the internal Lobs (see Nori, Fig. 4, block 406).

21. Referring to claim 15, it is well known in the art to use a client hosted on a wireless communication device. Most of the modern computers are equipped with the wireless cards. Therefore, one of ordinary skill in the art would have been motivated to use client computer hosted on a wireless communication device for convenience of access to the server and mobility of the client computers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grigory Gurshman whose telephone number is (571)272-3803. The examiner can normally be reached on 9 AM-5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571)272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GG

Grigory Gurshman
Examiner
Art Unit 2132



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